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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/510,334

10/05/2004

Ruediger Oesten

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EXAMINER

KALAFUT, STEPHEN J

ART UNIT

PAPER NUMBER

1745

MAIL DATE

DELIVERY MODE

10/04/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/510,334

Applicant(s)

OESTEN ET AL.

Examiner

Stephen J. Kalafut

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1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☒ Claim(s) 4,6,9 and 12 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>05 October 2004</u> . | 6) <input type="checkbox"/> Other: ____ |

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Claims 8-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. There is no antecedent for "said dispersion liquid" in claim 8. The term "base" is confusing, since a "base" is normally understood to be a compound having an -OH group, which gives the resulting aqueous solution a pH of over 7. The phrase "drying the same" is confusing because it appears to refer to the dispersion liquid. Normally, the term "drying" refers to the solids from which liquid is removed, rather than the liquid itself. Instead, the solids that have been filtered out of the dispersion are being dried. Claims 9-13 depend from claim 8, and would thus likewise be indefinite.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Uehara *et al.* (JP 08-250,120).

Uehara *et al.* disclose a battery cathode composition comprising an active material (section 0008) coated with a metal sulfide, selenides or telluride (section 0006). The active material would correspond to the present "base". The active material may comprise manganese (sections 0008, 0038 and 0051). The coating material may comprise two metals (section 0038), or any of Mg, Cr, Fe, Zr, Nb, In and W (section 0055), all of these shown as sulfides, and thus

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containing a sulfur component. Since Uehara *et al.* disclose some of the same active “base” materials (section 0008) as those present (section 0025), at least some of them would also inherently have the same spinel structure.

Claims 4, 6, 9 and 12 are objected to because of the following informalities: The article “a” is needed before “manganese component” or “sulfur component”. Appropriate correction is required.

Claims 8-13 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action. The prior art cited either herein or by applicant does not disclose a process for making a cathode composition, comprising the steps of dispersing an active material to be coated into water; adding, under controlled pH, a raw material including one or more metal components and one or more of S, Se and Te; precipitating the coating onto the active material; filtering the resulting suspension; and drying the thus-filtered solids after the coating is formed.

The disclosure is objected to because of the following informalities: While the specification contains a “Brief description of Drawing”, no drawing figure has been found, even though the present foreign priority document contains a drawing. Also, the Brief Description should be placed between the Summary of the Invention and the Detailed Description, rather than at the end of the specification. Appropriate correction is required.

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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cho *et al.* (US 6,916,580) disclose cathode materials coated with an oxide layer. Numata *et al.* (US 6,576,215) disclose a process of making spinel-type lithium manganite, to be used as an active material in batteries. The U.S. documents cited with the IDS of 05 October 2004 have been considered. Although equivalent to documents cited with an "X" in the International Search Report, these do not disclose active materials that have a coating with a component of S, Se, or Te. The Japanese, European or WO documents have not been received, and are thus crossed out. However, since Uehara *et al.* is also cited with an "X", and has been found to disclose coatings containing S, Se or Te, it has been applied above. A copy of this document, including an English translation, is enclosed.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J. Kalafut whose telephone number is 571-272-1286. The examiner can normally be reached on Mon-Fri 8:00 am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

sjk


STEPHEN KALAFUT
PRIMARY EXAMINER
GROUP 1700